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ABSTRACT

This project paper explains the theoretical basis that educators used in writing developmental career education materials for Project Green River Opportunities for Work (GROW) in Region 3, Kentucky, and outlines the steps regional and district personnel took in laying the groundwork for the publication, "Learning Concepts in Career Development." Formation of regional personnel committees to plan the scope, sequence, and delivery system design included in the kit is described. The report concludes with recommendations for the kit's use and discusses improvements. The author indicates that the Region 3 method of selecting concepts and choosing a mini-unit technique for its matrix design for kindergarten through secondary and post-secondary levels can serve as a model by others in planning similar career education programs. The matrix format described uses the kindergarten through post-secondary grade levels as the vertical dimension, and mini-units under learning concept headings of self awareness, career awareness, appreciations and attitudes, and decision-making skills form the horizontal dimension of the matrix. Appendix A presents the Project GROW sequential delivery system for career education matrix design. Appendix B develops the four learning concepts in career development. Appendix C outlines four mini-units in self awareness. Appendix D contains the mini-unit evaluation sheet. A list of references is included. (Author/TA)

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Development and Proposed Implementation Of a Career Education Curriculum Utilizing a Matrix Technique

by
Theo Hunter Vickers
1975

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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DEVELOPMENT AND PROPOSED IMPLEMENTATION OF A
CAREER EDUCATION CURRICULUM
UTILIZING A MATRIX TECHNIQUE

Theo Hunter Vickers May 1975 65 pages

Directed by: Doctors Emmett Burkeen, Faye Robinson, and
Eugene Harryman

Department of Counselor Education Western Kentucky University

The results of a needs assessment and a review of other career education programs, administered by a federally funded career education project in Region 3, Kentucky, indicated that one of the requirements for developing a successful occupational program was to produce sequential career education curriculum materials for all students in the region, kindergarten through post-secondary.

The process by which Region 3's Project Green River Opportunities for Work (GROW) career education leaders defined the scope and sequence of the materials and determined the materials' design into a matrix format were described. Also included was a summary of the research, production, and dissemination of the work of a select Matrix Development Committee, which was responsible for meeting the regional curriculum need by producing the comprehensive career education materials.

A description of the final product of the career education project, a kit entitled Learning Concepts in Career Development, suggestions for its use, and recommendations for its improvement, were detailed.

CHAPTER I

Introduction

Career Education: A New Educational Goal

The United States Office of Education (USOE), in the passage of the Vocational Education Acts of 1963 and 1968, began a venture into an awareness, orientation, and preparation program for children and adolescents in planning their life work during the 12 to 14 years they were to spend in the public school institutions of the nation.

At the inception of the federal government's interest in the new educational goal, the words "career education" became common in the public schools as educators began to hear more and more about the importance of teaching students about the world of work. One problem persisted, however, as the schools' interest widened: guidelines for career education had been written in ambiguous terms and everyone seemed to be asking the question: "Just what is career education?"

Although the USOE made several attempts to define the term, that office has not written a comprehensive definition for career education for use throughout the country.

States have also worked on defining the term "career education." For example, in an unpublished position paper produced by the Kentucky Department of Education, the authors defined career education as "a comprehensive, systematic educational program which provides relevant and cumulative experiences designed for all individuals, all levels, all ages, to achieve maximum success in the preparation and

performance of various life roles." (Kentucky Department of Education, Unpublished Career Education Report of the Writing Team for Kentucky's Career Education Position Paper, June 1973, p. 11). But, to date, the Commonwealth of Kentucky has not reached a definitive decision on a comprehensive definition for use throughout the state.

In spite of the fact that a single definition could not be agreed upon in both federal and state levels career eudcation, whatever its meaning, was funded in each of the fifty states as pilot research projects.

Background of Project GROW

One of the career education projects funded by the USOE through the Kentucky Bureau of Vocational Education was Project Green River Opportunities for Work (GROW) in Vocational Education Region 3 in northwestern Kentucky.

Project GROW was the nation's first regional career education program funded under the vocational acts. Initiated in January 1972 and continuing for two-and-one-half years, this regional program served seven counties in northwestern Kentucky, an area which supports 84 public elementary and secondary schools, 4 vocational-technical institutions, and 1 community college.

Project GROW was organized to cover three areas of information: awareness (elementary), orientation and exploration (middle school), and preparation (high school and post-secondary).

Major objectives of Project GROW (as envisioned by the original proposal) include research, in-service workshops for various levels of regional school personnel, region-wide administration of student occupational inventories, and dissemination of locally-written and

commercially-produced career education materials. This report will concentrate on Project GROW's production of locally-written career education materials.

Lacking a definition from higher governmental levels for career education, the regional project decided to accept the definition of Kenneth Hoyt, current director of career education activities in the USOE, and his fellow authors. The definition reads:

> Career education is the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual (Hoyt, Evans, Mackin, & Mangum, 1972, p. 1).

Need for Curriculum Materials

A study of the needs of education was undertaken by the Kentucky Department of Education. The 1972 Kentucky Educational Needs Assessment Study, Phases II and III reports the findings of the study. The writers of the Phases II and III volume indicate that a final report that terminated Phase I of their study listed specific concerns of Kentucky educators and citizens in rank order of priority. The list includes:

1. Learning skills
2. Vocational knowledge and skills
3. Human relations
4. New approaches to learning
5. Citizenship
6. Basic knowledge areas
7. Social and economic disadvantages
8. School readiness
9. Physical and mental differences
10. Physical and mental health

(Kentucky State Department of Education, 1972, p. 2)

From the list Project GROW selected as Region 3 priorities

the vocational knowledge and skills priority (#2), together with other of the priorities that coincided with career education rationale: human relations (#3), new approaches to learning (#4), and social and economic disadvantages (#7).

In addition to the state study of general education priority programs, a Region 3 study of specific needs in career education was undertaken. Results of the study showed that "needs for teacher and counselor in-services" ranked as the first priority. Second in rank order was "need for career education materials" (Kentucky Vocational Region 3, 1973, Appendix E).

At the inception of the regional career education project in January 1972, work was begun immediately to meet the objectives in rank order of the stated priorities. To meet priority item #1, individual teachers, counselors, and administrators met periodically for in-service instruction. In attempting to meet priority #2, liaison personnel from each school district wrote materials and purchased commercial products to fulfill classroom needs for career education information. Teachers at all levels throughout the region contributed lesson plans, and the regional staff duplicated the plans to distribute across the region and to other career education projects throughout the United States.

As the Project progressed, however, it became clear that two important objectives had been overlooked in the project's efforts to produce materials. Project GROW was failing to consider students' need for specific career information at peak readiness maturational levels and teachers' need for instructional materials that are organized in a sequential order and that possess continuity.

Out of these unmet needs grew the major accomplishment of the project: the development of a career education curriculum that would span in a comprehensive manner the educational years of the school-age participants. While the lesson plans which had been prepared during the previous year and a half by individual teachers met many of the needs of individual classrooms and individual school programs, they did not comprise an over-all program that would meet the needs of the total regional school population, kindergarten through post-secondary. Project leaders recognized the necessity for developing specialized curriculum plans at the regional level which would meet the students' maturational, emotional, and mental developmental needs and the instructors' needs for an articulated program.

Rationale for the Report

This report describes the process followed by Project GROW as it undertook to provide the needed career education curriculum materials, with the hope that the project's experience can serve as a model for others who wish to undertake a similar curriculum program.

Limitations of the Curriculum Materials

Many problems had to be faced when the decision to develop the developmental career education materials came nine months before the project was to be phased out. Major concerns involved the time factors required in planning, writing, duplicating, field testing, and evaluating the materials.

Field testing was limited to the teachers and counselors who had previously taught career education units or who could teach a career education unit on short notice. Most evaluation feedback from the

field testing, totaling approximately 30 returns, was limited to evaluating the lesson that the evaluator had written him/herself.

Providing materials for the 39 public schools in the region with their approximately 1,500 teachers and administrators and 40,000 students seemed at first to be one barrier too difficult to overcome. However, a system of sharing the materials through a newly organized Matrix Development Committee helped surmount many duplication and distribution problems.

Summary

This chapter has presented some general background information on the national career education program. It has concentrated, however, on one regional career education project, Project Green River Opportunities for Work (GROW) in Kentucky's Region 3, which saw the local need for producing career education materials. Plans were made to develop career materials for students to meet maturational, emotional, and mental developmental needs and for instructors to meet their needs for articulating career education from one grade to the next in a comprehensive manner. Limiting factors in developing the materials were discussed.

CHAPTER II

Planning the Scope, Sequence, And Design of the Materials

Project GROW leaders had to make several decisions at the outset of the career education curriculum program. First, they had to decide which grade levels the materials should encompass. Secondly, they had to establish a need for sequencing the career education concepts to be selected for use in Region 3. Lastly, they had to design a system that would deliver materials to several grade levels at an ever-increasing depth of complexity.

In making these decisions, Project GROW regional and district staff members reviewed the attempts of other career education projects to plan the scope and sequence of their programs and to design a program for delivery. Although a wealth of material exists that deals with theories of occupational choice and rationale for initiating career education programs, only a few reports presented rationale advocating scope and sequence and even fewer presented a design for a comprehensive method for articulating career education information for students as they proceed from one grade level to the next.

The following pages relate the rationale that Project GROW used in establishing scope, sequence, and design for its career education materials.

Rationale for Establishing the Scope of the Materials

As far back as 1962, a panel of consultants on vocational education had noted that career development programs at the high school level were too late for many students. In arguing for a career development program that starts early in students' lives, they said:

> Of every 10 students now enrolled in the elementary grades, three will probably not attain high school graduation. How will these three earn a living in the world of the 1960's without a high school diploma? How can the schools help them before and after they "drop out"? Of the other seven boys and girls who will finish high school in this decade, three will not go on to college. What will these high school graduates do for a living? How well will their high school education prepare them to earn a living, or, in the case of many girls, to perform the duties of housewife and mother? Of the remaining four students who will eventually enter college, only two will receive baccalaureate degrees. What are the prospects of the two who do not complete four years of college? How will high school and post-high school study help them earn a living?
>
> Thus, eight out of ten youngsters now in the elementary schools who have a need for vocational education are a major concern of this report. These young people will enter the labor force in this decade 26 million strong, and will account for nearly 90 percent of the growth in the labor force during the 1960's. By the end of this decade, three million young workers will enter the labor force each year, compared with two million annually at the start of the decade. Will these young workers be well prepared for the world of work? Will their interests, skills, and knowledge match the changing requirements of the economy? (Jesser, 1974, pp. 15-16).

Later in the same report, the panelists wrote that the efforts of career education programs of the early and mid 1960's did not attempt to deal with the over-all picture of occupational education. "Instead, each seemed to address itself to a specific part or aspect

of the 'big picture.' It was really not until the late 1960's and early 1970's that educational leaders began to grapple with the totality--or the perceived totality--of the problem" (Jesser, 1974, p. 17).

When Sidney P. Marland, Jr. became U. S. Commissioner of Education, he emphasized that career education must encompass the entire school program from kindergarten through secondary school completion. In addition, he said it should include the post-secondary, adult, and continuing education levels. In Marland's plan, students would also get actual help in finding a job. He suggested that the curriculum should be built around the 15 job clusters (e.g., health, marketing and distribution, public service, fine arts and humanities, manufacturing) named in the Dictionary of Occupational Titles, a publication of the U. S. Department of Labor. Marland suggested that students in the first six grades become familiar with all the job clusters, while students in grades 7 and 8 explore those clusters that most interested them individually. Students in grades 9 and 10 would explore a single cluster of their choice and develop some special skills in that cluster. In this plan, students in grades 11 and 12 had three options: pursue a selected career to get enough skill to get employment upon leaving school, combine academic and job training courses to prepare for training at a technical institution, or follow a program directed towards enrollment in higher education for a professional degree (Marland, 1971, pp. 2-3).

Gordon I. Swanson of the University of Minnesota also emphasized the point of including every educational level in the career education program:

> Except at a temporary stage of installation, career education cannot be implemented at a single level of education. The concept requires movement elements which expand and extend throughout and beyond the elementary and secondary years. The purposes of career education...cannot be achieved by a partial program of career education (Swanson, 1972, p. 3).

In a keynote address at the National Seminar for State Directors of Community-Junior Colleges, Dr. Robert M. Worthington, Associate Commissioner of the Bureau of Adult, Vocational, and Technical Education in the United States Office of Education, said that "career education would be a comprehensive education program which would begin in kindergarten and continue through the adult years."

> The need for developing career competence and awareness obviously starts long before the student reaches community college age. Career education, if it is to effectively reach all populations, must be integrated into the curriculum at all levels. This means a pyramid organization structure, with one component building upon another...(Worthington, 1972, p. 3).

Listing the trends of the seventies Robert E. Campbell, director of the Vocational Development and Adjustment Program and an associate professor of psychology at the Center for Vocational and Technical Education at Ohio State University, Columbus, wrote:

> Within the past decade the parameters of career guidance in public schools have changed. Historically, it focused on senior high school, but now has expanded to include K-14. A number of events have stimulated this change such as the concept of career education, the desire for orderly career development, and a need for accurate information about the world of work at an earlier age.
>
> Concurrent with this change has been the realization that to effectively design and evaluate practices that span K-14, adequate assessment techniques are needed for diagnostic evaluation of career development, evaluation of practices and programs, identification of deficiencies in education, and crosscultural comparative information. In response to this need, the concepts of vocational maturity and developmental

tasks have been proposed as a framework for assessing career education (Campbell, 1974, p. 295).

R. A. Ehrle, another strong advocate of the comprehensive approach to career education, summarized his June 1972 address at Western Kentucky University, Bowling Green, by saying:

> I discussed a small amount of learning theory and research which suggests that learning occurs best in a "spiral" fashion of didactic exposure, followed by experience, followed by further didactic exposure, followed by more complex experiences during the student's normal perceptualization, conceptualization and generalization stages of development. Career Education would seem to be grounded in this theory and research as opposed to the presentation of facts and information in sterile isolation. Furthermore, it amounts to be a real redefinition of education per se as the educational establishment attempts to survive as a viable institution in a turbulent environment (Ehrle, 1972, p. 28).

Since the opinions of these and other authorities convinced the staff members of the need for career education information at every level in the school program, they chose to include every student at every level, K through post-secondary, to receive occupational materials.

Rationale for Establishing the Sequence of the Materials

Another facet of the materials design which the Region 3 project leaders had to consider was the sequencing of the materials to be prepared for educators in Region 3. A research of the literature indicated that a developmental approach in preparing the lesson units is highly recommended.

Dr. Thomas D. Yawkey, assistant professor of Early Childhood Education at the University of Wisconsin, Madison, and Eugene L. Aronin, Child Development Specialist for the Harford County Schools in the state

of Maryland and a career education consultant to the Maryland State Department of Education, co-authored a paper on current trends in career education in which was emphasized the sequencing of a program:

> It is implicit in the developmental organization of these career activities that counselors at higher levels understand what was done at lower levels and have input at all grade levels.... Ideally, a district composed of high schools, junior high schools and several elementary schools could jointly design a program with elements in concert with one another....It is evident that through coordinated efforts, gains made in programs at one level are continued at the next level (Yawkey & Aronin, 1973, p. 4).

Joseph W. and Lucile U. Hollis, career education authorities at Ball State University, wrote:

> Information in the education, occupational, and personal-social processes can be personalized by accidental, unprofessional, and uncoordinated means, but the developmental approach is more meaningful if the direction is planned, the sequences of activities are outlined, and progress is evaluated. To accomplish such tasks coordination for integration and continuity is necessary (Hollis & Hollis, 1969, p. 55).

Edward D. Smith, another advocate of career education, also emphasized sequencing when he stated "It is incumbent upon school counselors to capitalize on the inherent eagerness and curiosity of youth by developing sequential experiences designed to mold vocationally mature young adults" (Smith, 1971, pp. 144-152).

Convinced by these and other career education specialists, Project GROW chose to plan its career education materials in a sequential pattern, K through 14, increasing the complexity of the materials as the students progress through the school program.

Design of the Materials

The third problem that faced Project GROW was the designing of a

delivery system for the career materials to be produced in Region 3. After careful study of several programs, project leaders chose a matrix system as the best approach for helping the students K through post-secondary learn concepts of career education and for helping instructors articulate career information from grade level to grade level.

One of the chief contributors to Project GROW's choice of a matrix design for their developmental approach to career education was Ohio State University. Information from Ohio State University's Comprehensive Career Education Model (CCEM) proved basic to Project GROW's program. The CCEM used eight elements they considered necessary to the educational experience of students. The list includes:

Self Awareness	Skill Awareness and Beginning Competence
Career Awareness	Appreciations and Attitudes
Economic Awareness	Decision-making Skills
Educational Awareness	Employability Skills

The CCEM used these eight elements as one dimension on a graph-like "matrix." The other dimension listed grade levels K through 12. The cells formed by the intersecting horizontal and vertical lines were used to list career education objectives appropriate for the various grade levels. As the CCEM was expanded, information on the "matrix" was enlarged to include concept and support activities (Miller, 1972, pp. 8-18).

In modifying the CCEM, Project GROW chose to limit the basic elements to include four of CCEM's eight divisions:

Self Awareness	Appreciation and Attitudes
Career Awareness	Decision-making Skills

Thus, the construction of the Project GROW "matrix" listed the four elements as one dimension and grade levels K through post-secondary as the other dimension (see Appendix A). Project GROW leaders planned

to list at each of the intersecting points of the vertical and horizontal lines career education concepts to be learned by students (Appendix A). The next chapter of this report outlines the procedures used by Project GROW to produce a Learning Concepts in Career Development kit for teachers to implement the sequential career education program by utilizing the "matrix" technique. It is hoped that the process used by Project GROW in developing the career education curriculum materials can be modified for use by other career education programs.

Summary

In summary, this chapter has established the rationale Project Green River Opportunities for Work (GROW) followed in selecting the scope of the curriculum materials to include K through post-secondary students and the sequence of the materials in an articulated manner to bring about a developmental approach to the career education materials they planned to produce. Finally, the chapter explained the design of the materials into a "matrix" format using the K through post-secondary grade levels as the vertical dimension and special element headings (self awareness, career awareness, appreciations and attitudes, and decision-making skills) as the horizontal dimension.

CHAPTER III

Development of Career Education Materials

To meet the goal of preparing materials on career development for Region 3 educators, the regional staff and the district career education directors asked each local education agency in the program to select teachers, counselors, and administrators to represent the districts on a Career Education Matrix Development Committee. The steering committee acted to exclude all consultants from participating on this committee, since they felt that regional teachers, counselors, and administrators had been exposed to enough in-service training on the subject to be able to develop a career education curriculum for Region 3 without further help from outside sources.

The Matrix Development Committee was divided into sub-committees for each of four grade levels: primary (K-3, awareness); intermediate (4-6, orientation); middle school (7-9, exploration); and high school through post-secondary (10-12, 13-14, and adult, preparation). Two-day meeting dates were set for each sub-committee, with a final one-day joint meeting scheduled for re-writing and editing the materials. Fifty-eight educators from throughout the region became members of the various matrix committees: 11 at the primary level; 7, intermediate; 17, middle school; and 23, high school and post-secondary.

Agendas planned for each of the four sub-committees were con-

centrated in two areas: one was concerned with the selection of career education concepts for each level and the second was concerned with the writing of mini-units for each of the chosen concepts.

The regional office staff compiled a list of concepts which they had selected from career education literature, other career education projects, and experience. The Matrix sub-committee members collected additional concepts for the list to bring the number to 176 (see Appendix A). By eliminating and combining some of the concepts, the committee members narrowed the list of concepts to 141 (see Appendix B for a list of the 141 concepts selected by the Matrix Development Committee; the list indicates which of the concepts were later developed into mini-units).

The sub-committees met in numerical order, primary first and high school through post-secondary last. Each sub-committee selected from the list of 141 concepts those concepts which they felt most nearly met the developmental needs of their particular age levels. As each group (after the primary level) met, the Matrix Development Sub-committee members tried to choose those concepts that served as stepping stones from the more basic information that had been introduced at the lower levels. However, it was decided that concepts could be used at a lower level than was indicated if a particular concept was felt to be needed by a particular group of students at an earlier stage of development than the label indicated. Conversely, Matrix members felt that a teacher should go back to a concept listed for a lower grade level if, for some reason, a particular group of students had not learned the concept during their earlier years.

By using this method of concept selection, committee members were

able to use a developmental approach in planning their career education materials. Thus, the "matrix" design was taking shape. Added to the graph-like dimensions which showed primary, intermediate, middle school, and high school/post-secondary as the vertical dimension and self-awareness, career awareness, appreciations and attitudes, and decision-making as the horizontal dimension, the points of intersection now included concepts appropos to each grade level.

Development of Mini-Units

Planning the Format and Writing the Units

After the grade-level assignment of the career education concepts, each Matrix Development Committee member wrote mini-units, or lesson plans, to suggest techniques for presenting the career concepts to students in Region 3. Committee members worked as individuals or in groups, depending on the preferences of each sub-committee.

Each lesson unit was written according to a standard format (see Appendix C for four examples of mini-units which follow the selected format). The standard format includes a selection of one of the four basic career education elements from the CCEM matrix (self awareness, career awareness, appreciations and attitudes, and decision-making) and the grade level for intended use. In addition, the format also includes a concept (chosen from among those selected for each grade level), performance objectives, enabling activities, resources and materials, and competence assessment of students.

The Matrix Development Committee members wrote the mini-units for infusion into the regular curriculum and not for study separate from regular subject-matter. Duration of each mini-unit varies from a single class period to several weeks. The printed length of the

lesson units varies from one to four pages.

Evaluating the Units

After each of the four sub-committees had met, the lesson plans were duplicated by the regional staff and disseminated to all the members in each sub-committee. Given a month to field test the mini-units, the sub-committee members evaluated the effectiveness of each of the lessons they used in classroom and guidance sessions, according to specified standards (see Appendix D for a sample of the evaluation sheet, which was attached to every mini-unit that was disseminated). Because of time limitations, many of the lesson plans did not receive the field test treatment; only 30 evaluation sheets were returned from educators in Region 3, and many of these were from teachers who had taught similar units earlier in the year and were evaluating from memory. Most of these evaluators reported that they had used no formal evaluation as part of their teaching procedure. In addition, there was little or no cross evaluation; the evaluators returned evaluation sheets for the lesson plans they had written, while no one evaluated mini-units written by others.

The lesson plans which did receive field test treatment were revised, as suggested by the field test evaluation sheets. All other lesson plans were further revised to conform more closely to the prescribed format by the Matrix Development Committees in a one-day joint meeting scheduled for that purpose. All lesson plans were edited by regional staff members.

Compilation of the Kit

The 102 concepts (see Appendix B) which were developed into

mini-units by the Matrix Development Committees included the following numbers for each element:

Self Awareness	30
Career Awareness	36
Appreciations and Attitudes	24
Decision-making	12
Total	102

Of the 141 concepts selected by the Matrix Committee members, only 39 were not developed into lesson units (see Appendix B). The mini-units which were developed were printed by graphic arts students at the Daviess County (Kentucky) Vocational Technical School in Owensboro. Duplicated on heavy paper (8½ x 11), the lesson sheets were housed in a heavy cardboard file box. The packet was named Learning Concepts in Career Development kit. The pages were not bound, in order for users to be able to lift out individual lesson plans as they were needed. Dividers were used to indicate the four grade levels (primary, intermediate, middle school, and high school/post-secondary), while several colors of ink keyed the different elements (self awareness, career awareness, appreciations and attitudes, and decision-making).

A guide, fastened with a comb binder, was included in the kit for the teachers and guidance counselors who would use the lesson units. The manual lists members of the matrix sub-committees who chose the career education concepts and who wrote the mini-units. The guide book also gives a general description of the mini-units, the concepts that were selected for each grade level under the appropriate element heading, and the definition of some of the terms used in the kit.

The Learning Concepts in Career Development kits were distributed to each school in Region 3. Additional copies were disseminated to the

Green River Educational Development District, the Kentucky Bureau of Vocational Education, and the United States Office of Education. No extra copies were printed. At this writing, the Kentucky Bureau of Vocational Education is deciding whether to print additional copies of the kit or to distribute the information in the kit via the ERIC System.

Summary

This chapter outlined the steps followed by Project GROW in compiling locally-written career education materials into a Learning Concepts in Career Development kit. Educators were selected from each school district represented in Region 3 to identify career education concepts for each grade level, K through post-secondary, to plan a format for writing mini-units to accompany each concept, to write mini-units, and to field test and evaluate their own work. The chapter also describes the contents of the Learning Concepts in Career Development kit and names recipients of the career materials.

CHAPTER IV

Recommendations and Summary

Recommendations

The Learning Concepts in Career Development kit can be used in a variety of ways: as lesson units used in isolation, as mini-units incorporated into regular subject matter, or as a part of a developmental career education program designed by a school or school system.

To use a mini-unit as it is, in isolation from subject matter taught in the classroom, the teacher can ask the students to perform the enabling activities as they are described in the kit. For example, the unit: "Self Awareness, Concept #3: Each person has similarities to and differences from all other people" (Appendix C) can be taught, as the writers suggest, by asking students to compare and contrast physical characteristics, to discuss likenesses and differences regarding sex roles, interests, talents, and so on through the activities. The students will learn a great deal about themselves and others by following the lesson plan as it is presented.

To make the mini-unit more meaningful, the teacher can use the suggested activities in connection with a unit of study on People in Foreign Lands. Showing how other races are similar in some characteristics, yet different in others, the instructor can bring out how individuals in the class are also similar and yet different, thus showing personal relevance in the subject matter.

To make the mini-unit meaningful in a different way, the teacher

and counselor can team teach a unit. The instructor can still teach the study on People in Foreign Lands, for example, and the counselor can come into the classroom to discuss the self-awareness section of the unit. To further increase the use of the kit, the teacher and counselor, at the beginning of the year, can choose all of the concepts listed for their grade levels that they feel their students need to study during each semester. The teacher, as an individual, and the teacher with the counselor, as a team, can then program the selected concepts into the subject matter at the times they would be the most meaningful to the students.

Another example of the use of the kit materials is to establish a sequential program for students as they progress through their school years. In a study of similarities and differences, a committee of persons within the school (or, even better, within the school system) would meet to discuss what students need to know at each level of maturation in order to be ready for information that they need to learn at the next level. This approach would use the Learning Concepts in Career Development to its fullest extent, a truly developmental study that would span all the school years, in the effort to discover the maximum career potential for each individual student. To explain the developmental aspects of four mini-units, one at each of the chosen grade levels, the following program can be followed:

Under the Self Awareness element column at each of the levels are the following concepts (Appendix B):

> Primary: Concept #3: Each person has similarities to and differences from all other people.
>
> Intermediate: Concept #13: Individuals vary in aptitude, ability, and interests.

Middle School: Concept #19: Occupations require different knowledge, abilities, and attitudes.

High School: Concept #27: Self-understanding comes from investigating personal characteristics and perceptions, together with studying relations with others and the environment.

By coordinating efforts of schools at each level in the system, the students would receive a sustained emphasis on similarities and differences, yet the same content would not be repeated over and over throughout the students' school careers. Appendix C presents the following information in four mini-units:

Concept #3 presents the basic principle of similarity and differences.

Concept #13 shows in specific areas that individuals are different.

Concept #19 shows that occupations require differences in people.

Concept #27, presented during the years immediately preceding the job-conscious ones, investigates personal characteristics in relation to chosen careers.

After the study of the four lessons at several points in their school years, students will have received a developmental education, acquiring more and more complex information as they are ready for it.

If career education is, indeed, one of the priorities of education, teacher/counselor planning in individual schools will have to be coupled with total school/school system planning to meet the needs of the students. The use of the Learning Concepts in Career Development kit is one method of facilitating that planning.

Needed Improvements for the Mini-Units

Because of time limitations, members of the Matrix Development

Committee were unable to provide all the information and activities in the Learning Concepts in Career Development kit that had been envisioned at the beginning of the endeavor. After examining the materials that had been developed, they felt that the following revisions and additions are needed:

1. A more extensive focus on the job clusters.
2. The addition of placement and follow-up mini-units.
3. More mini-units that stress skill development and work experience programs.
4. More guidance information, especially in the areas of appreciations and attitudes and decision-making.
5. The production into mini-units of the 39 concepts that were not developed for the 1974 edition of the kit.
6. More mini-units devoted to the needs of minority groups, disadvantaged, culturally deprived, and women.
7. The integration into the kit of the more than 100 regional teacher-written lesson plans produced during the year and a half preceding the development of the kit.
8. More guidelines for the mini-units' uses in the teachers' manual.

Considerations Needed for Implementation

In further examining the materials housed in the kit, Project GROW leaders felt they should have placed more emphasis in the kit manual on recommendations for (1) personnel requirements and (2) evaluation procedures that seem necessary for producing a viable career education program.

First, career education personnel are of primary concern. The hiring of a career specialist in each school district is highly recom-

mended. Without a coordinator of activities, a developmental program in career education will be very difficult to keep in operation. In this same vein, the lowering of the student/counselor ratio in the regional schools can increase the time counselors can devote to the career development aspects of the educational program. Another facet that should have received emphasis in the kit manual has to do with provisions for in-service training for teachers, counselors, and administrators in the region in the use of the kit. Also needed in the manual are techniques for para-professionals to follow under the supervision of professionally qualified career education teachers and counselors.

In addition, the kit manual should provide for the planning of joint-planning conferences for teachers-teachers and teachers-counselors. In the same way, schools need to have cooperative planning sessions with other schools of their same grade levels, as well as with cross-level schools, elementary through post-secondary.

Plans for the formation of community advisory committees for the use of the kit in areas of community involvement is also a suggested addition.

Secondly, more emphasis should have been placed on methods of up-grading the materials in the kit. Thorough field testing of the materials is needed. All the mini-units written by the Matrix Committee members, plus any others that are developed, should undergo further field testing, with more formal evaluation methods provided in the future.

In addition, evaluative measures need to be introduced into the kit materials for assessing how far students have progressed in self

awareness toward self identity, in career awareness toward career identity, in appreciations and attitudes toward self and social fulfillment, and in decision-making skills toward career decision skills.

It is also recommended that an objective evaluation of the career education program in Region 3, including an assessment of the Learning Concepts in Career Development kit, should be made one year and five years after the kit's introduction into the schools of the region.

Summary

This project paper has attempted to explain the theoretical basis that educators chose to use in writing developmental career education materials for Project Green River Opportunities for Work (GROW) in Region 3, Kentucky, and to outline the steps the regional and district personnel took in laying the groundwork for the publication, Learning Concepts in Career Development. The formation of regional personnel committees to plan the scope, sequence, and a delivery system design to be included in the kit was described. At the conclusion of the report, recommendations for the kit's use and improvement were discussed. It is hoped that the Region 3 methods of selecting concepts and of choosing a mini-unit technique for its matrix design for kindergarten through secondary and post-secondary levels can be used by others in planning similar career education programs throughout the United States.

APPENDICES

Project GROW Matrix Design
Sequential Delivery System for Career Education
Primary Levels K-3
Concept Statements

PRIMARY LEVEL CONCEPT STATEMENTS

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
	Every person is a unique individual of value and worth.	The student needs to be aware of the work roles of the members of the family.	Students will need to be aware of the importance of each individual in the home unit.	All people make decisions every day that affect their lives.
	A student has capabilities and limitations differing from other people.	Work that is liked by some people is disliked by others.	People feel good when they have done a good job.	People make good and bad decisions in regard to self.
	Each person has similarities to and differences from all other people.	Hobbies and interests may develop into a career.	Each person has a contribution to make in the world of work.	Students need to become aware of cause and effect in making decisions.
	People have many different feelings.	The school helps the students obtain knowledge and skills.	People need to be happy in their jobs.	One must accept the consequences of his own decisions.
	We learn about self from family, peers, and others.	The students need to be aware of the occupational roles within the school.	Students need to appreciate the workers in the school.	There are several components of the decision-making process.
	The student is a member of various groups.	Every career requires some special training.	Respect for all types of work is important.	Results of decisions are not always immediate.

Project GROW
Sequential Delivery System for Career Education
Primary Levels K-3
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
PRIMARY LEVEL CONCEPT STATEMENTS	A student's attitude affects his personal development. Students must assume responsibilities for use of leisure time. The student must assume responsibility at home and at school.	People work for different reasons. The students need to be aware that there are jobs in the community outside the home and the school. Society is dependent on many workers. Some workers produce materials and other workers provide services. A person may have many different jobs during his life time. Workers are dependent on other workers.	Man's work contributes to the wealth and productivity of the nation. It is important to get along with other people. Community workers make contributions to the students and other people in the community. Personal mannerisms influence decisions other people make about an individual.	People make decisions based on their perception of self and their environment.

Project GROW
Sequential Delivery System for Career Education
Intermediate Levels 4-6
Concept Statements

INTERMEDIATE LEVEL CONCEPT STATEMENTS

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
	Individuals vary in aptitude, ability, and interests. Each person is a member of the society. People are who they think they are, who others think they are, and who they really are. Each person is responsible for self-control. One of the basic needs of man is interaction with others: family, peers, and others.	Facts about careers come from many sources and experiences. There is a wide variety of occupations, some of which can be classified: indoor-outdoor jobs, people-things-ideas jobs, skilled-unskilled and professional-technical. Occupations require different knowledge, abilities and attitudes. People pursue occupations for many reasons. Geographical settings affect work.	In a democratic society each person is free to choose his own occupation. Each person benefits from the work of many people in the community. The student's contribution to the community is important. The quality of one's work is important. Man's work contributes to the wealth and productivity of the nation. Attitude affects job performance.	Decisions related to career choice are highly dependent on personal goals. Decisions are made on the basis of past experience and acquired knowledge. Whether the decision is "good" or "bad" depends on the outcome for the individual. A person is often allowed to make more decisions as he matures.

Project GROW
Sequential Delivery System for Career Education
Intermediate Levels 4-6
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
INTERMEDIATE LEVEL CONCEPT STATEMENTS	People like to associate with others who share common interests with them. Sex roles in today's society are changing rapidly. Attitude about school affects learning. One needs to learn basic skills in sports and hobbies, as well as in school activities. Freedom involves assuming more responsibility, and the assumption of more responsibility usually allows an individual less	Society is dependent on many workers. As people change their skills, age group, geographical location, and interests, their occupations may also change. Some people assume responsibilities in a work role early in life. Some people make adult careers out of student sports and other interests. The learning of basic skills has carry-over learning to many occupations.	An employer sometimes bases the promotions of his employees on several factors: getting to work on time, showing an interest in their work, productivity, employee relations, low rate of absenteeism, willingness to accept responsibility, and self-direction. Man's work contributes to the wealth and productivity of the nation.	There are several steps in the decision-making process: (1) conflict (2) risk (3) objective/ subjective (4) analysis of alternatives (5) self (6) cumulative.

Project GROW
Sequential Delivery System for Career Education
Intermediate Levels 4-6
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
INTERMEDIATE LEVEL CONCEPT STATEMENTS	control from authority figures. Homework is the responsibility of individual, and not that of the teacher or the parent. A person's work may contribute to a positive self concept. A person must constantly adjust to his environmental setting.	Economic changes in the society can change the relative importance of any one occupation. Career choice is a developmental process.		

Project GROW
Sequential Delivery System for Career Education
Middle School Levels, 7-9
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
MIDDLE SCHOOL LEVEL CONCEPT STATEMENTS	One progresses at his own rate in career development. How leisure time is used plays an important part in a person's life. Age, sex, race, and religion should no longer limit career possibilities. Individuals are people-things-or-idea oriented (or a combination of these). Individuals may be qualified to perform in many different occupations.	Parents are the most important career guidance persons in many students' lives. Career development is based upon a sequential series of educational and occupational choices. A part of subject matter in school should relate to future occupations and leisure time activities. Summer and part-time jobs, as well as in-school work often helps students decide on a future career.	Each person should be aware of and appreciate his freedom of choice in a democracy. A satisfying career often contributes to good health and happiness. Once a task is selected, there are certain responsibilities that one takes upon himself and promises others to finish the job. Work provides opportunities for one to enhance his dignity and worth. With individual freedom comes responsibility.	Each career choice is associated with possible rewards and satisfactions. Decision-making should be based on success and failure probabilities. Career decisions will be based on values and attitudes that a person holds. Public school exiters at any level must decide whether to take a job, obtain on-the-job training, or seek further technical or academic education. One must accept the responsibility for the decisions he makes in career choice.

Project GROW
Sequential Delivery System for Career Education
Middle School Levels, 7-9
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
MIDDLE SCHOOL LEVEL CONCEPT STATEMENTS	One should learn to be self motivating as he enters the work world. Education is a life long learning experience for preparation for any career. It is often expected of a person to accept roles at work, at home, and in the community. Each individual needs to understand, accept, and respect his own uniqueness as a person.	Most careers can be classified into 15 job cluster areas. Supply and demand help determine the job market. Some persons produce goods; others provide services. Technological, sociological, and geographical changes eliminate and create jobs. In-depth study and acceptance of an individual's responsibilities, aptitude, and interest, help one to make a realistic job choice.	There are certain rules and regulations people must follow in any society. A person's ability to cooperate, to remain flexible, and to relate to other people makes it easier to obtain and hold a job. A person's attitude toward his work and those he works with is important. Occupations and life styles are often interrelated.	The decision-making process applies to the selection of a potential career. Many people begin to make tentative career choices early in life. Career choice is a developmental process. Career decisions should be made on an individual basis considering all available information, including personal risk and cost for training. Career decisions made now often affect a person's entire life.

Project GROW
Sequential Delivery System for Career Education
Middle School Levels, 7-9
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
MIDDLE SCHOOL LEVEL CONCEPT STATEMENTS	Goal setting is important in acquiring necessary education and skill training for the job of one's choice. A person's standard of living is often directly related to his work roles and his personal values. A person's perception of himself in relationship to others and to the environment affects his life. Life is not always a "high" or "low" experience. In a democracy each person should try each day to identify a good feeling.	Methods of refining one's career choice include: observation of work conditions, actual work experience, and on-the-job training. Almost every job requires a certain level of skill training upon entry. Career training may require educational, vocational, or technical schooling. A person needs to explore many different occupations before selecting a particular one. People pursue occupations for many reasons.	A person's friends and his family have an intense effect upon his values, attitude formations, and career expectations. The learning of basic skills has carry-over learning to many occupations.	

APPENDIX A (CONT.)

Project GROW
Sequential Delivery System for Career Education
Middle School Levels, 7-9
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
MIDDLE SCHOOL LEVEL CONCEPT STATEMENTS	A person is one member of a society of people who have differing values, traditions, and opinions. Selecting an occupational career in school does not necessarily mean a person will enter that occupation nor pursue it all his life. There is a wide variety of occupations, some of which can be classified: indoor-outdoor jobs, people-things-ideas jobs, skilled-unskilled and professional-technical. Occupations require different knowledge, abilities, and attitudes.	Society is dependent on many workers. Workers are dependent on other workers. The students need to be aware of the occupational roles within the school. Some people make adult careers out of student sports and other interests; in planning these careers, students should be realistic.		

Project GROW
Sequential Delivery System for Career Education
Levels 10-12, 13-14, and Adult
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
10-ADULT LEVEL CONCEPT STATEMENTS	Changes occur in individuals as a result of learning, growth, and maturation. Individual goal setting helps achievement in any area; one's goals should be based on an understanding of himself. Individuals are often considered to be mature when they become self motivated. The earlier that one discovers whether he is people-things-or-idea oriented (or a combination of these), the sooner he can eliminate and specify certain career possibilities.	Different kinds of work require varying degrees and types of competencies, preparation, and/or training. Jobs and skills can be related to different school subjects. Labor, management, and schools should work hand-in-hand, but sometimes they find that their goals are in conflict. Many jobs require that the worker start at the bottom and work his way up the ladder. There are special requirements for getting all jobs.	Self knowledge is related to a person's system of values. Wise planning of leisure-time activities enhances the enjoyment of life for the individual. In many occupations cooperation among workers is essential. The customs, traditions, and attitudes of society affect the world of work. Work can be a satisfying experience. Persons need to be recognized as having dignity and worth.	The choice of a career involves a compromise between greater and lesser needs, wants, and goals. Many high school, technical school, and college students enter jobs to finance their education. Decision-making is sometimes enhanced by the ability of a person to accept new ideas. An important step in career decision-making is a wise use of a wide range of resource information.

Project GROW
Sequential Delivery System for Career Education
Levels 10-12, 13-14, and Adult
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
10-ADULT LEVEL CONCEPT STATEMENTS	Individual potential and environment interact to influence career development. A person's relationships with other people, with his employer, and with society affect his own career, as well as the careers of others. An individual, not others, should choose the direction that he wants to go. Self-understanding comes from investigating personal characteristics and perceptions, together with studying relationships with others and the environment.	While work means different things to different people, all work needed by society is honorable and dignified. Education and work are interrelated. Changes and conditions in the world affect careers. A career choice is not necessarily a final one. Each of the career areas differ in their levels of responsibility.	There are identifiable attitudes and behaviors which enable one to obtain and hold a job. One needs to appreciate his own creativity, ability, and individual resources. One's basic attitudes toward social, economic, educational, and cultural forces will affect his behavior. Specialization leads to inter-dependency among people.	People have the right to make decisions; at the same time, people must accept the responsibility for the outcome of their decisions. Assessing abilities, aptitudes, and achievement are related to career decision-making. Work experience facilitates career decision-making. Career decisions usually are developed over a long period of time.

Project GROW
Sequential Delivery System for Career Education
Levels 10-12, 13-14, and Adult
Concept Statements

CAREER EDUCATION ELEMENTS	SELF AWARENESS	CAREER AWARENESS	APPRECIATIONS AND ATTITUDES	DECISION-MAKING
10-ADULT LEVEL CONCEPT STATEMENTS	People need to understand their own feelings and to learn how to deal with them effectively. Communication skills are important in helping one understand himself and others.	A worker must understand not only his job, but also his employer's rules, regulations, policies, and procedures. Technology has unlimited implications for man's work and leisure time.	Sometimes it is just as important to know how to be a good follower as it is to be a good leader. Wise application of one's talents and abilities in a job can be rewarding, both in self-satisfaction and in earnings.	Often one is not in the position to choose whether he will work by himself, with a team, or under supervision.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

SELF AWARENESS CONCEPTS

Primary Grades

Concepts developed into mini-units for the kit:

1. People have many different feelings.
2. We learn about self from family, peers, and others.
3. Each person has similarities to and differences from all other people.
4. Friends are important to every person.
5. The student must assume responsibility at home and at school.
6. Students' attitudes affect their personal development.
7. A student is a member of various groups.
8. A person has both strengths and weaknesses which are unique.

Concept selected by the Matrix Development Committee but not developed into a mini-unit for the kit:

a. Students must be responsible for their use of leisure time.

Intermediate Grades

Concepts developed into mini-units for the kit:

9. One of the basic needs of people is to associate with others and share common interests with them.
10. Attitude about school affects learning.
11. One needs to learn basic skills in sports and hobbies, as well as in school activities.
12. People are who they think they are, who others think they are, and who they really are.
13. Individuals vary in aptitude, ability, and interests.
14. Each person is a member of the society.
15. Sex roles in today's society are changing rapidly.

LEARNING CONCEPTS IN CAREER EDUCATION
Project GROW

SELF AWARENESS CONCEPTS (CONT.)

Intermediate Grades (cont.)

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

b. One of the basic needs of man is interaction with others who share common interests with them.
c. People like to associate with others who share common interests with them.

Middle School Grades

Concepts developed into mini-units for the kit:

16. Life is not always a "high" or "low" experience.
17. A person is one member of the society of people who have different values.
18. How leisure time is used plays an important part in a person's life.
19. Occupations require different knowledge, abilities, and attitudes.
20. Goal setting is important in acquiring necessary education and skill training for the job of one's choice.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

d. Age, sex, race, and religion should no longer limit career possibilities.
e. Individuals may be qualified to perform in many different occupations.
f. Persons should learn to be self motivating as they enter the world of work.
g. Education is a life-long learning experience for preparing for any career.
h. The standard of living of an individual is often directly related to work roles and personal values.
i. Selecting an occupation does not mean doing this job for the rest of one's life.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

SELF AWARENESS CONCEPTS (CONT.)

High School through Post-Secondary

Concepts developed into mini-units for the kit:

21. The understanding, acceptance, and development of self is a life-long process and is constantly changed and influenced by life experiences.
22. Person's relationships with other people, with their employers, and with society affect their own careers, as well as the careers of others.
23. Changes occur in individuals as a result of learning, growth, and maturation.
24. Often persons are not in the position to choose whether they will work by themselves, with a team, or under supervision.
25. Persons need to appreciate their own creativity, ability, and individual resources.
26. Many high school, technical school, and college students enter jobs to finance their education.
27. Self-understanding comes from investigating personal characteristics and perceptions, together with studying relationships with others and the environment.
28. Individuals are often considered to be mature when they become self motivated.
29. Communication skills are important in helping people understand themselves and others.
30. Individual potential and environment interact to influence career development.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

j. Changes occur in individuals as a result of learning, growth, and maturation.
k. All persons should have the opportunity to choose their own personal direction in life.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

CAREER AWARENESS CONCEPTS

Primary Grades

Concepts developed into mini-units for the kit:

1. The student needs to be aware of the work roles of the members of the family.
2. The students need to be aware of the occupational roles of the workers at the school.
3. Workers are dependent on other workers.
4. Hobbies and interests may develop into a career.
5. Society is dependent on many workers.
6. There are many jobs outside the home and school.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

a. Every career requires some special training.
b. A person may have many different jobs in a life time.
c. Each member of the family has responsibilities.
d. Work is liked by some people and disliked by others.

Intermediate Grades

Concepts developed into mini-units for the kit:

7. People pursue occupations for many different reasons.
8. Some people make adult careers out of student sports and other interests.
9. Society is dependent on many workers.
10. Geographical settings affect work.
11. Facts about careers come from many sources and experiences.
12. Economic changes in the society can change the relative importance of anyone's occupation.
13. Some people assume responsibilities in work early in life.
14. Occupations require different knowledge, abilities, and aptitudes.
15. The learning of basic skills has carry-over into many occupations.
16. Career choice is a developmental process.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

CAREER AWARENESS CONCEPTS (CONT.)

Intermediate Grades (cont.)

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

e. As people change their skills, age group, geographical location, and interest, their occupations may also change.

Middle School Grades

Concepts developed into mini-units for the kit:

17. Most careers can be classified into 15 job cluster areas.
18. Our nation is totally committed to and dependent on scientific technology.
19. Supply and demand help determine the job market.
20. Career training may require education, vocational, and technical schooling.
21. In-depth study of an individual's responsibilities, aptitudes, and interests helps one to make a realistic job choice.
22. Methods of refining one's career choice include observation of workers and working conditions, actual work experience, and extensive research.
23. There are special requirements that must be met in order for a person to obtain a job: application, resume, personal interview, and a Social Security card.
24. Technological, geographical, sociological, and economic changes eliminate and create jobs.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

f. Parents are the most important career guidance persons in many students' lives.
g. Summer and part-time jobs, as well as in-school work, often help students decide on future careers.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

CAREER AWARENESS CONCEPTS (CONT.)

High School through Post-Secondary

Concepts developed into mini-units for the kit:

25. Attitudes and behaviors affect all life processes, especially in the area of getting and holding a job.
26. Jobs and skills can be related to different school subjects.
27. Career areas differ in their levels of responsibility.
28. Jobs and skills can be related to different school subjects (the use of decimals in measuring).
29. Changes and conditions in the world affect careers.
30. Occupational choices are based on a series of decisions relating to knowledge of self.
31. There are special requirements that must be met in order for a person to obtain a job: application, resume, personal interviews, and Social Security card.
32. Different kinds of work require varying degrees and types of competencies, preparation, and/or training.
33. Workers must understand not only their individual jobs, but also their employer's rules, regulations, policies, and procedures.
34. Many jobs require that the workers start at the bottom and work their way up the career lattice.
35. A career choice is not necessarily a final one.
36. Technology has unlimited implications for man's work and leisure time.

Concepts selected by the Matrix Development Committee but not developed into a mini-unit for the kit:

h. Education and work are interrelated.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

APPRECIATIONS AND ATTITUDES CONCEPTS

Primary Grades

Concepts developed into mini-units for the kit:

1. It is important to get along with other people.
2. Students need to appreciate the individual workers in the school setting.
3. Community workers make contributions to the students and other people in the community.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

a. Personal mannerisms influence decisions other people make about an individual.
b. People need to be happy in their jobs.
c. People need to feel good about the jobs they do.

Intermediate Grades

Concepts developed into mini-units for the kit:

4. Attitudes about school affect learning.
5. Respect for all types of work is important.
6. A student's contribution to the community enhances the wealth and productivity of the community.
7. Each person benefits from the work of many people in the community.
8. A person's work contributes to his own satisfaction.
9. In a democratic society, people are free to choose their own occupations.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

d. The quality of a person's work is important.
e. Attitude affects job performance.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

APPRECIATIONS AND ATTITUDES CONCEPTS (CONT.)

Middle School Grades

Concepts developed into mini-units for the kit:

10. With individual freedom comes responsibility.
11. There are thousands of careers in the world of work.
12. People's attitudes toward their work and toward the persons with whom they work are important.
13. The understanding of emotions helps us understand ourselves and others.
14. There are certain rules and regulations people must follow in any society.
15. A person needs to explore many different occupations before selecting a particular one.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

f. Friends and family have an immense effect upon values, attitudes, and career expectation.
g. Work provides opportunities to enhance a person's feeling of dignity and worth.
h. Occupations and life styles are often interrelated.

High School through Post-Secondary

Concepts developed into mini-units for the kit:

16. Person's basic attitudes toward social, economic, educational, and cultural forces affect their behavior.
17. All persons should appreciate the opportunity of being able to select their own careers and to choose personally the institution for training for them.
18. The customs, traditions, and attitudes of society affect the world of work.
19. Sometimes it is just as important to know how to be a good follower as it is to be a good leader.
20. In many occupations, cooperation among workers is essential.
21. Work can be a satisfying experience.
22. Persons need to be recognized as having dignity and worth.
23. A satisfying career often contributes to good health and happiness.
24. Specialization leads to interdependency among people.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

APPRECIATIONS AND ATTITUDES CONCEPTS (CONT.)

High School through Post-Secondary (cont.)

Concepts selected by the Matrix Development Committee but not developed into a mini-unit for the kit:

i. Self knowledge is related to a person's system of values.

DECISION-MAKING CONCEPTS

Primary Grades

Concepts developed into mini-units for the kit:

1. People make decisions every day.
2. Sometimes people make good decisions and sometimes they make bad decisions.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

a. Results of decisions are not always immediate.
b. People make decisions based on their perception of self and their environment.

Intermediate Grades

Concepts developed into mini-units for the kit:

3. Students need to become aware of cause and effect of decisions, and they must accept the consequences of their own decisions.
4. There are several steps in the decision-making process: (1) conflict, (2) risk, (3) objective-subjective, (4) analysis of alternatives, (5) self, and (6) cumulative.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

DECISION-MAKING CONCEPTS (CONT.)

Intermediate Grades (cont.)

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

c. Decisions are made on the basis of past experiences and acquired knowledge.
d. Whether the decision is good or bad depends on the outcome for the individual.
e. People are often allowed to make more decisions as they mature.

Middle School Grades

Concepts developed into mini-units for the kit:

5. Making decisions often involves compromising for something less than was originally planned as a goal.
6. Decision-making should be based on success and failure probabilities.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

f. Career decisions often affect a person's entire life.
g. Each career choice is associated with possible rewards and satisfactions.
h. Career decisions are based on values and attitudes that a person holds.
i. The decision-making process applies to the selecting of careers.

High School through Post-Secondary

Concepts developed into mini-units for the kit:

7. The assessment of abilities, aptitudes, and achievement is related to career decision-making.
8. People have the right to make decisions and the responsibility to live with them.
9. The process of career selection often begins early in life.

LEARNING CONCEPTS IN CAREER DEVELOPMENT
Project GROW

DECISION-MAKING CONCEPTS (CONT.)

High School through Post-Secondary (cont.)

Concepts developed into mini-units for the kit (cont.):

10. The choice of a career involves a compromise between greater and lesser needs, wants, and goals.
11. An important step in career decision-making is a wise use of a wide range of resource information.
12. Many high school, technical school, and college students enter jobs to finance their education.

Concepts selected by the Matrix Development Committee but not developed into mini-units for the kit:

j. Decision-making is sometimes enhanced by the ability of a person to accept new ideas.
k. Work experience facilitates career decision-making.

FOUR MINI-UNITS IN SELF AWARENESS

LEARNING CONCEPTS IN CAREER DEVELOPMENT

SELF AWARENESS

PRIMARY GRADES

CONCEPT #3: Each person has similarities to and differences from all other people.

PERFORMANCE OBJECTIVES

1. By the end of this unit, 90% of the students will be able to name five ways they are similar to others.

2. By the end of this unit, 90% of the students will be able to name five ways they are different from others.

ENABLING ACTIVITIES

1. The teacher will display student pictures so that students can compare and contrast physical characteristics.

2. Students will discuss likenesses and differences regarding sex roles, interests, talents, etc.

3. Students will make a booklet entitled "Me" in which they use drawings and pictures to show their similarities to and differences from their peers. (Example: students may cut out pictures which show their personal physical characteristics--hair and eye color, sex--and interests and then cut out pictures which show people that display different characteristics.)

4. The students will choose someone in their families that they are "most like" and "most different" from. They will report to the class the reasons for their decisions.

SELF AWARENESS
SIDE 2

ENABLING ACTIVITIES (cont.)

5. Students will observe people in the community to denote similarities and differences among people.

RESOURCES AND MATERIALS

1. Field Trips
   a. Individual trips into the community, recording similarities and differences among people.

2. Supplies and Materials
   a. Paper
   b. Crayons

3. Bulletin Boards
   a. Student booklets entitled "Me"

COMPETENCY ASSESSMENT OF STUDENTS

1. In a student-teacher conference the students will name orally or in writing five ways they are similar to and five ways they are different from other people.

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LEARNING CONCEPTS IN CAREER DEVELOPMENT

SELF AWARENESS

INTERMEDIATE GRADES

CONCEPT #13: Individuals vary in aptitude, ability, and interests.

PERFORMANCE OBJECTIVES

1. At the end of this unit, 85% of all students will be able to list five activities they can do well.
2. At the end of this unit, 85% of all students will be able to list five interests of their fellow students to compare with their own interests.
3. At the end of this unit, students will explain orally or in writing to the teacher a skill they are able to perform well.

ENABLING ACTIVITIES

1. Teacher will administer an interest inventory to determine student interests.
2. Students will hold a group discussion of interest in life. They will compare their interests with one another. Students will cut out pictures of their special interest activities to display on the bulletin board.
3. The teacher will ask the students to demonstrate to the class a skill they can do well.

RESOURCES AND MATERIALS

1. Guest Speakers
   a. The teacher will use interest inventory results in selecting a speaker the children could relate to their special interests.

SELF AWARENESS
INTERMEDIATE GRADES
CONCEPT #13
SIDE 2

RESOURCES AND MATERIALS (cont.)

2. Supplies and Materials
   a. Interest inventory
   b. Students will bring their own materials to school in order to demonstrate skills they can do well.
   c. Magazines

3. Bulletin Boards
   a. A picture display of various interests of the children.

COMPETENCY ASSESSMENT OF STUDENTS

1. On a teacher-made test, students will list five activities they do well and five interests their fellow students have.

2. In an oral examination the students will explain to the teacher a skill they do well.

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LEARNING CONCEPTS IN CAREER DEVELOPMENT

SELF AWARENESS

MIDDLE SCHOOL

CONCEPT #19: Occupations require different knowledge, abilities, and attitudes.

PERFORMANCE OBJECTIVES

1. By the end of this unit, students will be able to identify their present responsibilities, aptitudes, and interests.

2. By the end of this unit, students will be able to identify responsibilities, aptitudes, and interests they wish to develop in the future.

3. By the end of this unit, students will be able to identify one or more occupations which are in keeping with their self-evaluation.

4. By the end of this unit, students will be able to identify one (or more) occupations which they are presently interested in pursuing.

ENABLING ACTIVITIES

1. Students will identify through oral presentations, in writing, or through art work, their present responsibilities, interests, and aptitudes. Students may use the Vocational Information for Education and Work (VIEW) reader-printer, the Occupational Outlook Handbook, or the Dictionary of Occupational Titles, and other materials for their activities.

2. Students will identify through oral presentations, in writing, or through art work, the responsibilities, interests, and aptitudes they wish to develop in the future.

3. Students individually will write on a small sheet of paper aptitudes of their classmates. The sheets will be folded and placed in a box. The papers will be drawn by students for the class to "guess who" the aptitudes belong to.

SELF AWARENESS
MIDDLE SCHOOL
CONCEPT #19
SIDE 2

ENABLING ACTIVITIES (cont.)

4. Students will research three or more occupations, concentrating on such things as typical workday activities, job skill and educational requirements, earnings, ways of getting started, prospects for employment, and rewards.

5. Students will interview one worker in the community in whose job the student has an interest. The interview may be by telephone or personal appointment.

6. Teachers and students will arrange for students as individuals or as a class to observe people on their jobs.

7. Students will identify, by means of an essay or an art project, one or more occupations which they believe are in keeping with their interests and abilities.

8. The students will identify an occupation they believe a classmate is suited for and give reasons for choosing it. Students will interview one another in order to obtain this information.

RESOURCES AND MATERIALS

1. Guest Speaker
   a. Interviews of community workers

2. Field Trips
   a. To work sites in the community.

SELF AWARENESS
MIDDLE SCHOOL
CONCEPT #19
SIDE 3

RESOURCES AND MATERIALS (cont.)

3. Supplies and Materials
   a. Occupational Outlook Handbook (O. O. H.)
   b. Dictionary of Occupational Titles (D. O. T.)
   c. VIEW reader-printer
   d. Career related books, pamphlets, films, filmstrips, etc.

4. Hands-on Activities
   a. Art and/or construction project materials

5. Bulletin Boards
   a. Illustrations of careersstudents are interested in

EVALUATION OF STUDENTS

1. The teacher will evaluate oral presentations, essays, art work, and research activities.

2. The students will take a teacher/counselor-made test to help students identify their short- and long-range responsibilities, aptitudes, and interests.

3. In an oral session, the teacher will ask each student to name an occupation he would like to enter as a career.

APPENDIX C (CONT.)

SELF AWARENESS
MIDDLE SCHOOL
CONCEPT #19
SIDE 4

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LEARNING CONCEPTS IN CAREER DEVELOPMENT

SELF AWARENESS

HIGH SCHOOL THROUGH
POST-SECONDARY

CONCEPT #27: Self-understanding comes from investigating personal characteristics and perceptions, together with studying relationships with others and the environment.

PERFORMANCE OBJECTIVES

1. By the end of this unit, students will be able to list ten personality and attitude characteristics they possess as individuals.

2. By the end of this unit, students will be able to demonstrate five communications skills related to occupational needs.

3. By the end of this unit, students will be able to demonstrate knowledge of personal requirements and special needs in various areas of work by producing a notebook on a career of their choice.

ENABLING ACTIVITIES

1. Teacher will administer to students personality and attitude tests for self-evaluation. They will view materials on how to get along with people.

2. Students will choose individual self-improvement projects. They will discuss processes of getting and keeping a job.

3. The teacher will conduct a communications development unit which will include: correct usage of the phone, proper manners for conducting introductions, personal on-the-job interviews, methods of inviting speakers to the class, and methods of writing information-seeking letters. Students will share their

SELF AWARENESS
HIGH SCHOOL THROUGH POST-SECONDARY
CONCEPT =27
SIDE 2

ENABLING ACTIVITIES (cont.)

3. (cont.)
information-gathering activities with the class. They will view the film: "How to Communicate with the Public."

4. Students will research their principal job choice areas by visiting job sites and interviewing persons now in the field. They will request brochures and will also read books on the job choice. The students will invite workers to come to the classroom to discuss their occupations. They will view the filmstrip: "If You Are Not Going to College."

5. Students will maintain a notebook which contains materials developed during the unit. Entitled Project Career and Me, the notebook will contain information they learn about themselves, about the quest speakers, and about the field trips.

RESOURCE AND MATERIALS

1. Guest Speakers
   a. Persons chosen by students from the job areas of their choice.

2. Field Trips
   a. Individual trips to interview workers in chosen job clusters.

3. Supplies and Materials
   a. Filmstrips on communication skills: "How to Communicate with the Public"
   b. Filmstrip: "If You Are Not Going to College"
   c. Materials: "How to Get Along with People"
   d. Brochures from various companies

SELF AWARENESS
HIGH SCHOOL THROUGH POST-SECONDARY
CONCEPT #27
SIDE 3

RESOURCE AND MATERIALS (cont.)

4. Bulletin Boards
   a. A drawing of the cycle of processes in getting and keeping a job.

EVALUATION OF STUDENTS

1. On a teacher-made test, students will list ten personality and attitude characteristics they possess as individuals.

2. The teacher will evaluate the student notebooks on career choices.

3. The teacher will evaluate student communication skills as the students demonstrate correct usage of the phone, proper manners for conducting introductions, personal on-the-job interview role play, methods of inviting speakers to the class, and methods of writing information-seeking letters.

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APPENDIX D

Upon completion of this unit of study,
please send this evaluation sheet to:

Project G R O W
1501 Frederica Street
Owensboro, Kentucky 42301

MINI-UNIT EVALUATION SHEET

CAREER ELEMENT (circle one): 1. Self Awareness
2. Career Awareness
3. Appreciations and Attitudes
4. Decision-Making

CAREER CONCEPT (please write out in full): _____

_____

_____

SA = Strongly Agree A = Agree D = Disagree SD = Strongly Disagree

	SA	A	D	SD
CAREER ELEMENT				
1. Appropriate for grade level				
2. Adaptable to your subject area				
CONCEPT				
1. Related to the career element				
2. Applicable to the world of work				
3. Students of this level are capable of learning this concept				
OBJECTIVES				
1. The objectives, as stated, will help the students reach the concept				
2. The objectives are stated clearly in performance terms				
3. Students at this level should be able to perform the stated objectives				
ACTIVITIES				
1. Related to the objectives				
2. Adequate to meet the objectives				
3. Suitable for your instruction purposes				
4. Allow for individual differences				
5. Appropriate for this age group				
6. Flexible enough for the teacher				
RESOURCES				
1. Wide enough selection of activities				
2. Suitable for the unit				
3. Interesting to the students				

APPENDIX D (CONT.)

	SA	A	D	SD
APPLICABILITY				
1. The concept is relevant to today's world				
2. Transference of this concept is useful in life				
3. Within the unit, there was immediate applicability for the student				
EVALUATION				
1. The evaluation measures the performance objectives as stated				
2. The evaluation is appropriate for students in this grade level				
3. Results of the evaluation show a change in student behavior				

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